Facility ID: 1483040427 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1483040427 Emissions Unit ID: P003 Issuance type: Final State Permit To Operate

Go to the top of this document

Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

   (a) None.

2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

   (a) None.

A. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
400 pound, 4 hp solvent ink air mixer, with cover	OAC rule 3745-31-05(A)(3) (PTI 14-05130)	108.0 lbs of organic compound (OC) emissions/day 3.61 tons per year (TPY) of OC emissions 1.4 lbs of particulate emissions (PE)/day 1.4 lbs of particulate matter emissions with a diameter of 10 microns or less (PM10)/day 0.05 TPY of PE 0.05 TPY of PM10 emissions See Sections A.2 and B.1 below.
	OAC rule 3745-21-07(G)(2)	Exempt, see Section B.2 below.

2. **Additional Terms and Conditions**

   (a) The maximum OC (solvent) content of each ink produced in this emissions unit shall not exceed 75% OC, by weight, based on a daily-weighted average.
   The permittee shall take all steps necessary to ensure proper material load-in procedures, so as to minimize or eliminate visible PE of fugitive dust.
   Visible PE from any fugitive dust source shall not exceed 20% opacity, as a three-minute average.

B. **Operational Restrictions**

1. The maximum amount of inks produced in this emissions unit shall not exceed 641,000 pounds per year.

2. The use of any photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5), is prohibited in this emissions unit.

C. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information each day for this emissions unit:

   a. the name and identification of each batch of ink produced;

   b. the company identification of each liquid organic material employed in this emissions unit;

   c. a record of each liquid organic material employed in this emissions unit, indicating whether or not the liquid organic material is photochemically reactive as identified in OAC rule 3745-21-01(C)(5).

   d. the OC (solvent) content for each ink produced, in percent by weight;

   e. the amount of each ink produced, in pounds;

   f. the total daily OC emissions, in pounds [summation of (e) x (d/100%) x 30 lbs of OC emissions/ton of solvent used* x 1 ton/2,000 lbs, for all inks produced];

   g. the amount of pigments (non-volatiles/solids) employed, in pounds;

   h. the total PE or PM10 emissions, in pounds, [(g) x 2 lbs of PE or PM10 emissions/ton of pigment used** x 1

ton/2,000 lbs]; and

i. the daily-weighted average OC (solvent) content, as applied, in percent by weight, for all inks. The daily-weighted average shall be calculated by multiplying each ink's OC content in (d)/100%, by the respective amount produced of that ink in (e), for all inks produced during that day. The summation of these values shall then be divided by the total pounds of inks produced during that day.

* emission factor reference from AP-42, Fifth Edition, Chapter 6.4, Paint and Varnish Manufacturing, Table 6.4-1, dated 5/83

** emission factor reference from AP-42, Fifth Edition, Chapter 6.7, Printing Ink, Table 6.7-1, dated 5/83

2. The permittee shall maintain annual records of the following for this emissions unit:

a. the total amount, in pounds, of all inks produced in this emissions unit for the calendar year [summation of C.1.e for all days of the calendar year];

b. the total amount of PE or PM10 emissions, in tons, for the calendar year [summation of C.1.h for all days of the calendar year and divided by 2,000 lbs/ton]; and

c. the total OC emissions, in tons, for the calendar year [summation of C.1.f for all days of the calendar year and divided by 2,000 lbs/ton].

3. The permit to install for this emissions unit was evaluated based on the actual materials employed (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxics Policy") was applied for each toxic pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant for emissions units P001, P002 and P003:

Pollutant: n-propyl acetate
TLV (ug/m3): 835,420
Maximum Hourly Emission Rate (lbs/hr): 5.06
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,645
MAGLC (ug/m3): 19,891
Physical changes to or in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxics Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee shall not make the change. Changes that can affect the parameters used in the "Air Toxics Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
If the permittee determines that the "Air Toxics Policy" will be satisfied with the above changes, Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the "Air Toxics Policy":

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxics Policy"; and

c. when computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxics Policy" for the change.

D. **Reporting Requirements**

1. The permittee shall notify the Hamilton County Department of Environmental Services in writing, of each day during which any photochemically reactive material [as defined in OAC rule 3745-21-01(C)(5)] was employed in this emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of OC emissions emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the occurrence.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the OC content limitation as specified in Section A.2.a. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

3. The permittee shall submit annual reports that summarize the following information for this emissions unit:

a. the total OC, PE and PM10 emissions, in tons, for the calendar year; and

b. the total number of pounds of inks produced for the calendar year.

These reports shall be submitted by January 31 of each year and cover the previous calendar year.

E. **Testing Requirements**

1. Compliance with the OC emission limitations, PE and PM10 emission limitations, visible fugitive PE limitation, OC content limitation and the ink production restriction specified in Sections A and B shall be determined by the following methods:
OC Emission Limitations: 232.2 lbs/day of OC emissions; 2.41 TPY of OC emissions

Applicable Compliance Method: Compliance with the daily OC emission limitation shall be determined by the record keeping requirements specified in Section C.1.

Compliance with the annual OC emission limitation shall be determined by the record keeping requirements specified in Section C.2. In addition, compliance with the annual OC emission limitation is ensured if compliance is maintained with the annual ink production rate and the OC content limitation for inks.
PE and PM10 Emission Limitations: 1.4 lbs of PE/day; 1.4 lbs of PM10 emissions/day; 0.05 TPY of PE; 0.05 TPY of PM10 emissions

Applicable Compliance Method: Compliance with the daily PE and PM10 emission limitations shall be determined by the record keeping requirements specified in Section C.1. Compliance with the annual PE and PM10 emission limitations shall be determined by the record keeping requirements specified in Section C.2.
Visible PE Limitation: Visible PE from any fugitive dust source shall not exceed 20% opacity, as a three-minute average.

Applicable Compliance Method: Compliance with the visible PE limitation shall be determined by Test Method 9 of 40 CFR, Part 60, Appendix A.
OC Content Limitation: not to exceed 75% OC, by weight, based on a daily-weighted average

Applicable Compliance Method: Compliance with the OC content limitation shall be determined by the record keeping requirements specified in Section C.1. Formulation data or U.S. EPA Method 24 shall be used to determine the OC content of inks.
Ink Production Restriction: 641,000 lbs of inks produced/year

Applicable Compliance Method: Compliance with the annual ink production restriction shall be determined by the record keeping requirements specified in Section C.2.

F. **Miscellaneous Requirements**

1. None